



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Docket No: Q77444

ZEN, Shigekazu

Appln. No.: 10/663,843

Group Art Unit: 1616

Confirmation No.: 2852

Examiner: John D. Pak

Filed: September 17, 2003

For: PESTICIDAL EMULSIFIABLE CONCENTRATE

**SUBMISSION OF APPEAL BRIEF**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. A check for the statutory fee of \$500.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: March 23, 2006



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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

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Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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**I. REAL PARTY IN INTEREST**

The real party in interest is Sumitomo Chemical Company, Limited, the assignee of the present application. The assignment was recorded on October 30, 1997, at reel 8805, frame 0494 in parent Application No. 08/961,272 filed on October 30, 1997, now U.S. Patent 6,635,663.

**II. RELATED APPEALS AND INTERFERENCES**

Appellant, Appellant's counsel, and the assignee of the application are not aware of any other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. STATUS OF CLAIMS**

Claims 1 and 4-10 are pending in the application.

Claims 2 and 3 are canceled.

Claims 1 and 4-10 are rejected.

Claims 1 and 4-10 are being appealed.

Claims 1 and 4-10 are set forth in their entirety in the Claims Appendix submitted herewith.

**IV. STATUS OF AMENDMENTS**

On August 23, 2005, a Response Under 37 C.F.R. § 1.116 was filed in response to the final Office Action dated February 23, 2005. The claims were not amended.

The Advisory Action mailed September 12, 2005, indicates that the remarks submitted with the August 23, 2005 Response have been considered but do not place the application in condition for allowance. The Examiner maintains his position of record. To briefly summarize, the Examiner did not deem the remarks persuasive to overcome the rejection.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

Claim 1 is drawn to a pesticidal emulsifiable concentrate. Page 1, lines 24-25 of the specification. The pesticidal emulsifiable concentrate comprises (a) 1 to 60% by weight of a pyrethroid compound, (b) 2 to 15% by weight of at least one surfactant and (c) 15 to 90% by weight of at least one aromatic ester solvent represented by the formula:

Ar-X-COOR

[1]

wherein R represents a non-aromatic group having 1 to 6 carbon atoms; Ar represents an aromatic group; and X represents a single bond or an alkylene group having 1 to 6 carbon atoms. Page 1, line 25 through page 2, line 14 of the specification.

**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The issue presented for review is whether the Examiner erred in rejecting Claims 1 and 4-10 under 35 U.S.C. § 103(a) over Schmitt et al., U.S. Patent No. 5,389,300 in view of Derwent abstracts 1993-206225 and 1978-57608A.

**VII. ARGUMENT**

A. §103 Obviousness Rejection of Claims 1 and 4-10

Claims 1 and 4-10 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Schmitt et al., U.S. Patent No. 5,389,300 (“Schmitt”) in view of Derwent abstracts 1993-206225 and 1978-57608A.

Schmitt is relied upon as disclosing formulations for protecting sawn timber against fungi and insects, which contain in addition to o-phenylphenol and iodopropargyl derivatives, pyrethroids to increase the spectrum of action or achieve specific effects (col. 4, lines 4-6; col. 27-32; col. 4, lines 38-45). According to the Examiner, specifically disclosed pyrethroids include cyhalothrin, cypermethrin, permethrin and deltamethrin and can be used at a concentration range of 0.001 to 10 wt% (col. 4, lines 51-53). Page 2 of the Office Action mailed February 23, 2005.

Schmitt is also relied upon as disclosing that the formulations are prepared by dissolving the active compounds in a solvent such as butyl benzoate, with auxiliaries such as emulsifiers including nonionic and anionic surface active agents (col. 2, lines 61-66; col. 3, lines 9-12; col. 3, lines 17-26). Further, the solvent and surfactant amounts in the formulation are at least 20 wt% and about 5-25 wt%, respectively (col. 4, line 54; col. 5, lines 8-25; col. 5, lines 4-25; Claim 3). Pages 2 through 3 of the Office Action.

The Examiner notes that Schmitt does not explicitly include a pyrethroid in any specific example. Page 3, 3<sup>rd</sup> paragraph of the Office Action.

Derwent abstract 1993-206225 is relied upon as disclosing that cypermethrin and permethrin are used to protect wood against termites, and Derwent abstract 1978-57608A is relied upon as disclosing that permethrin is used to protect wood against termites. Page 3, 2<sup>nd</sup> paragraph of the Office Action.

The Examiner concludes that it would have been obvious to include an insecticide such as cypermethrin and permethrin to further protect Schmitt's sawn timber. Page 3, 3<sup>rd</sup> paragraph of the Office Action.

B. The Error in the Rejection

The error in the rejection is that Schmitt in view of Derwent abstracts 1993-206225 and 1978-57608A, do not establish a *prima facie* case of obviousness. Alternatively, any *prima facie* case of obviousness has been overcome by the unexpected superiority of the present invention.

C. Claims 1 and 4-10 are Patentable Over Schmitt in view of Derwent abstracts 1993-206225 and 1978-57608A

Schmitt discloses an agent for protecting sawn timber against wood-discoloring fungi comprising an active compound combination of at least one phenol derivative and at least one iodopropargyl derivative of the formula (I). See, column 1, lines 4-6 and column 1, line 51-column 2, line 6 of Schmitt.

Further, Schmitt discloses numerous additive compounds including pyrethroids may be added to the active compound combinations. See, column 3, line 27 to column 4, line 48 of Schmitt.

To establish a *prima facie* case of obviousness, the Examiner must show three criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings. *See In re Thrift*, 298 F.3d 1357, 136, 63 USPQ2d 2002 (Fed. Cir. 2002). Second, there must be a reasonable expectation of success. *See In re Inland Steel Co.*, 265 F.3d 1354, 1362-64, 60 USPQ2d 1396 (Fed. Cir. 2001). Finally, the prior art references must teach or suggest all the claim limitations. *See In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art and not be based on Applicants' disclosure. *See In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438 (Fed. Cir. 1991); Manual of Patent Examining Procedure § 706.02(j).

Further, "There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

Still further, if proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the

proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); Manual Patent Examining Procedure § 2143.01.

In the present case, the present invention is directed to a pesticidal emulsifiable concentrate comprising (a) 1 to 60% by weight of a pyrethroid compound, (b) 2 to 15% by weight of at least one surfactant and (c) 15 to 90% by weight of at least one aromatic ester solvent represented by the formula [1] as in Claim 1.

Schmitt describes that many additive compounds including pyrethroids, may be added to the composition; however, it does not exemplify a formulation comprising additive compounds, let alone a pesticidal emulsifiable concentrate comprising pyrethroids.

In addition, Derwent abstracts 1993-206225 and 1978-57608A do not make up for the deficiencies in Schmitt.

Moreover, the present invention provides a pesticidal emulsifiable concentrate which can be used as an emulsion which is superior in emulsion stability after diluting with water and has low-irritation. See, page 1, line 24 to page 2, line 16, and Test Example 2 of the present specification.

D. Conclusion

In view of the foregoing reasons, Appellant respectfully submits that the present claims are patentable over Schmitt in view of Derwent abstracts 1993-206225 and 1978-57608A, and that the rejection is improper and should be reversed.

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U.S. Application No.: 10/663,843

Attorney Docket Q77444

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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**CLAIMS APPENDIX**

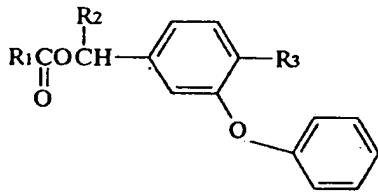
CLAIMS 1 and 4-10 ON APPEAL:

1. A pesticidal emulsifiable concentrate comprising (a) 1 to 60% by weight of a pyrethroid compound, (b) 2 to 15% by weight of at least one surfactant and (c) 15 to 90% by weight of at least one aromatic ester solvent represented by the formula:



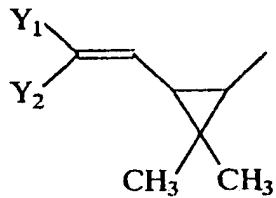
wherein R represents non-aromatic group having 1 to 6 carbon atoms; Ar represents an aromatic group; and X represents a single bond or an alkylene group having 1 to 6 carbon atoms.

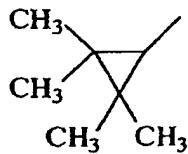
4. The pesticidal emulsifiable concentrate according to the claim 1, wherein the pyrethroid compound (a) is a compound represented by the formula:



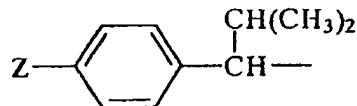
[ 3 ]

wherein R<sub>1</sub> represents a group of the formula





or



Y<sub>1</sub> and Y<sub>2</sub> are same or different and each represents a methyl group, a trifluoromethyl group, a halogen atom or an alkoxy carbonyl group (the number of carbons atoms of the alkoxy group is from 1 to 4); and Z represents a halogen atom or a difluoromethoxy group; R<sub>2</sub> represents a hydrogen atom or a cyano group; and R<sub>3</sub> represents a hydrogen atom or a fluorine atom.

5. The pesticidal emulsifiable concentrate according to the claim 1 or 4, wherein the aromatic ester solvent (c) is at least one selected from , methyl benzoate, ethyl benzoate, propyl benzoate, butyl benzoate, isoamyl benzoate, ethyl 2- methylbenzoate, methyl 2-methylbenzoate, ethyl 3-methylbenzoate, ethyl 4-methylbenzoate, ethyl phenylpropionate and ethyl phenylacetate.

6. The pesticidal emulsifiable concentrate according to claim 1 or 4, wherein the surfactant (b) is nonionic surfactant and/or anionic surfactant.

7. The pesticidal emulsifiable concentrate according to claim 1 or 4, wherein the amounts of the pesticidal active ingredient compound (a), the surfactant (b) and the aromatic ester solvent (c) are 2 to 40% by weight, 2 to 10% by weight and 20 to 60% by weight, respectively.

8. The pesticidal emulsifiable concentrate according to claim 5, wherein the surfactant (b) is nonionic surfactant and/or anionic surfactant.

9. The pesticidal emulsifiable concentrate according to claim 5, wherein the amounts of the pesticidal active ingredient compound (a), the surfactant (b) and the aromatic ester solvent (c) are 2 to 40% by weight, 2 to 10% by weight and 20 to 60% by weight, respectively.

10. The pesticidal emulsifiable concentrate according to claim 6, wherein the amounts of the pesticidal active ingredient compound (a), the surfactant (b) and the aromatic ester solvent (c) are 2 to 40% by weight, 2 to 10% by weight and 20 to 60% by weight, respectively.

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**EVIDENCE APPENDIX:**

Pursuant to 37 C.F.R. § 41.37(c)(1)(ix), submitted herewith are copies of any evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the appeal.

NONE

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**RELATED PROCEEDINGS APPENDIX**

Submitted herewith are copies of decisions rendered by a court or the Board in any proceeding identified about in Section II pursuant to 37 C.F.R. § 41.37(c)(1)(ii).

NONE